

U.S. Patent Application No. 10/628,281
Amendment dated December 9, 2009
In Response to the Office Action Mailed June 9, 2009

REMARKS

Continued examination and favorable reconsideration of the above-identified application are respectfully requested. Claims 1-11, 13-23, and 34 remain pending in the application. Claims 12 and 24-33 were previously canceled. Claim 34 was previously added. By this Amendment, claim 1 has been amended. Support for the amendments to claim 1 can be found throughout the specification, at least in Figs. 1a – 1d, and in particular in paragraphs [020] – [022] and [030] of the original specification. No new matter has been added.

Applicant greatly appreciates that the previous rejections have been withdrawn.

Rejection of Claims Under 35 U.S.C. §103(a)

At page 2 of the Office Action, claims 1-11, 13-23, and 34 are rejected under 35 U.S.C. §103(a) as being unpatentable over Karp I (U.S. Publication No. 2003/0223913) in view of Karp II (U.S. Publication No. 2003/0159742). For the reasons set forth below, this rejection is respectfully traversed.

Claim 1 has been amended to recite that the fluidic device provided comprises a substrate and a pathway formed in the substrate. The pathway formed in the substrate comprises the entry port, the purification column, and the output reservoir. In other words, each of the entry port, the purification column, and the output reservoir are formed in the substrate. While Karp I describes outlet ports 118A – 118H, and Karp II describes a fluidic port 30, neither reference discloses an output reservoir formed in a substrate, let alone where excess diluent is collected and subsequently mixed with purified sample. The Office Action recognizes at page 3, item 5, that Karp I fails to explicitly teach passing both the excess solvent and the diluted sample into the

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waste reservoir. Moreover, Applicant respectfully points out that Karp I also fails to disclose or suggest introducing the fluid sample into a purification column that is free of excess diluent, as is now recited in claim 1. Instead, Karp I teaches at paragraph [0063] that only “[a]fter the stationary phase material 169 is **fully wetted with solvent**, samples may be added to the device 100 through the sample ports 110A-110H and 111A-111H.” Emphasis added. Therefore, Karp I fails to disclose or suggest introducing fluid sample into a purification column that is free of excess diluent and instead teaches away from that by requiring that the stationary phase material is fully wetted with solvent. Similarly, at paragraph [0076] of Karp I, it is again stated that it is only “[a]fter the stationary phase material 269 is **fully wetted with solvent**, [that] samples may be added to the device 200 using the sample ports 210A-210H, 211A-211H.” Emphasis added.

Karp I furthermore describes at paragraph [0076] that “[a]fter the samples are loaded, solvent flow is re-initiated, and solvent flow through each bypass sample loading segment 235A-235H serves to carry each sample through a sample loading junction 256A-256H into the separation channels 261-268 where they are eluted to separate individual species.” In view of the desire to separate the eluted sample into individual species, it would neither have been obvious nor predictable for one of skill in the art to mix the samples with excess diluent or solvent that has been previously removed from the stationary phase material. This failure is recognized by the Office Action at page 3, item 5.

The Office Action then applies Karp II to overcome the deficiencies of Karp I, but Karp II does not. In particular, the Office Action relies on paragraph [0042] of Karp II for the alleged teaching of a method wherein both excess solvent from a slurry, and eluted sample, are passed from a device using the same channel. Applicant respectfully submits that the fluidic port 30 of

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Karp II is not an output reservoir, let alone an output reservoir where excess diluent is **collected**, as is presently claimed.

Even if Karp II were combined with Karp I, the claimed method would still not be achieved as neither reference discloses or teaches an output reservoir as presently claimed or a method where a fluid sample is introduced into a purification column that is free of excess diluent. Moreover, paragraph [0042] of Karp II, cited in the Office Action, describes using fluidic port 30 to exhaust slurry solvent from the device 10 and to exit mobile phase solvent and sample from the device 10. There is no teaching or suggestion of collecting any solvent in an output reservoir and mixing a purified sample with a collected solvent in such an output reservoir.

Karp II fails to over the deficiencies of Karp I in attempting to achieve the presently claimed invention. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

CONCLUSION

For at least the reasons discussed in detail above, Applicant submits that all pending claims are patentable over the applied reference. Withdrawal of the rejection and timely issuance of a Notice of Allowance are respectfully requested.

Should the Examiner deem that any further action by Applicant or Applicant's undersigned representative is desirable and/or necessary, the Examiner is invited to telephone the undersigned at the number set forth below.

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If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,



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